

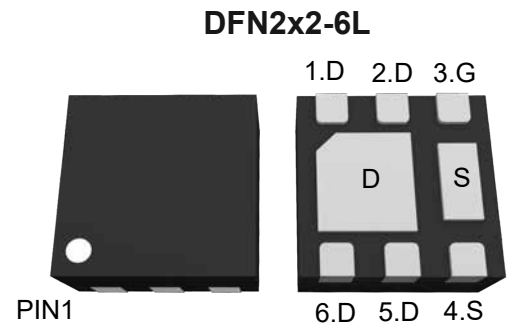


PJM09P20DF

P-Channel Enhancement Mode Power MOSFET

Features

- Low gate charge and $R_{DS(ON)}$
- $V_{DS} = -20V, I_D = -9A$
 $R_{DS(on)} < 26m\Omega @ V_{GS} = -4.5V$

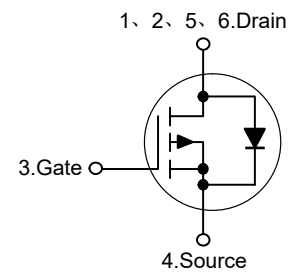


Marking Code: 09P20

Applications

- Load switch and power management
- PWM application

Schematic Diagram



Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$-V_{DS}$	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Drain Current-Continuous	$-I_D$	9	A
Drain Current-Pulsed ^{Note1}	$-I_{DM}$	30	A
Maximum Power Dissipation	P_D	3	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Thermal Characteristics

Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	41.6	°C/W
---	-----------------	------	------



PJM09P20DF

P-Channel Enhancement Mode Power MOSFET

Electrical Characteristics

(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	$-V_{(BR)DSS}$	$V_{GS}=0V, I_D=-250\mu A$	20	--	--	V
Zero Gate Voltage Drain Current	$-I_{DSS}$	$V_{DS}=-20V, V_{GS}=0V$	--	--	1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 12V, V_{DS}=0V$	--	--	± 100	nA
Gate Threshold Voltage	$-V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250\mu A$	0.4	0.7	1.0	V
Drain-Source On-Resistance ^{Note2}	$R_{DS(on)}$	$V_{GS}=-4.5V, I_D=-7A$	--	--	26	m Ω
		$V_{GS}=-2.5V, I_D=-5.6A$	--	--	37	m Ω
Forward Transconductance	g_{FS}	$V_{DS}=-5V, I_D=-2A$	--	8	--	S
Dynamic Characteristics						
Input Capacitance	C_{iss}	$V_{DS}=-10V, V_{GS}=0V, f=1MHz$	--	1200	--	pF
Output Capacitance	C_{oss}		--	191	--	pF
Reverse Transfer Capacitance	C_{rss}		--	168	--	pF
Switching Characteristics						
Turn-on Delay Time	$t_{d(on)}$	$V_{DS}=-10V, I_D=-5A$ $V_{GEN}=-4.5V, R_G=10\Omega$	--	11	--	nS
Turn-on Rise Time	t_r		--	35	--	nS
Turn-off Delay Time	$t_{d(off)}$		--	30	--	nS
Turn-off Fall Time	t_f		--	10	--	nS
Total Gate Charge	Q_g	$V_{DS}=-10V, I_D=-5A, V_{GS}=-4.5V$	--	33.7	--	nC
Gate-Source Charge	Q_{gs}		--	3.5	--	nC
Gate-Drain Charge	Q_{gd}		--	10.5	--	nC
Source-Drain Diode Characteristics						
Diode Forward Voltage	$-V_{SD}$	$V_{GS}=0V, I_S=-9A$	--	--	1.2	V
Diode Forward Current	$-I_S$		--	--	9	A

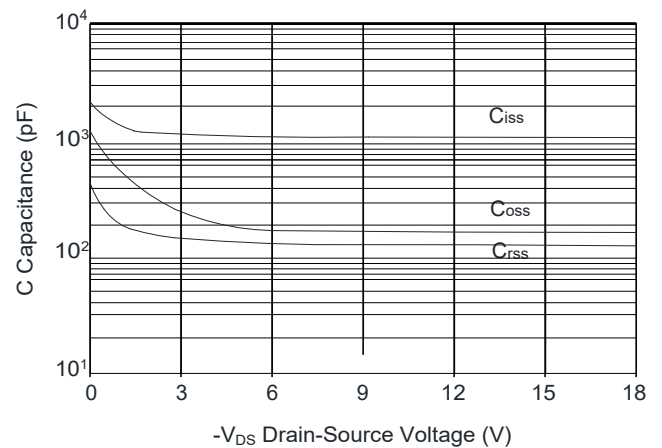
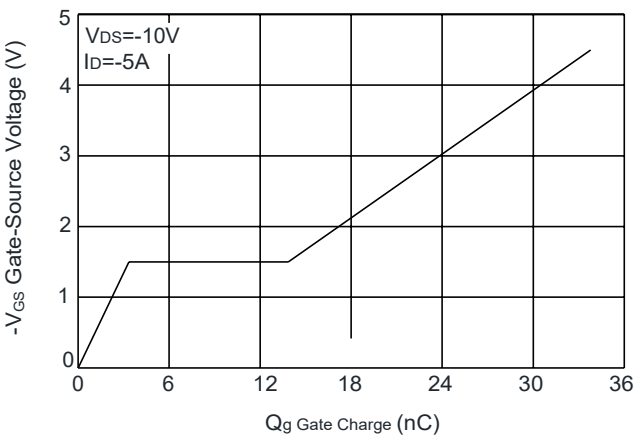
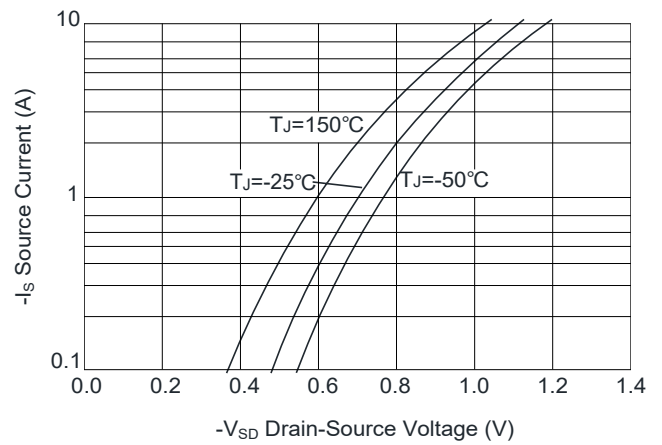
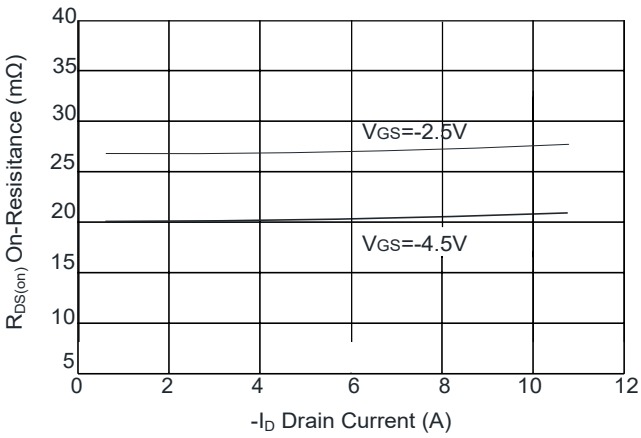
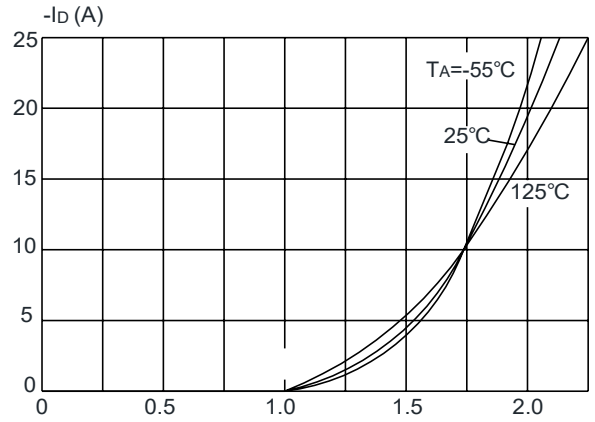
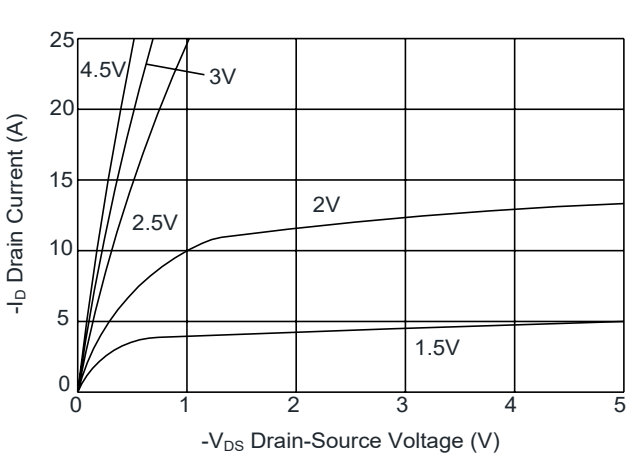
Note: 1. Repetitive Rating: Pulse width limited by maximum junction temperature.
 2. Pulse Test: Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.



PJM09P20DF

P-Channel Enhancement Mode Power MOSFET

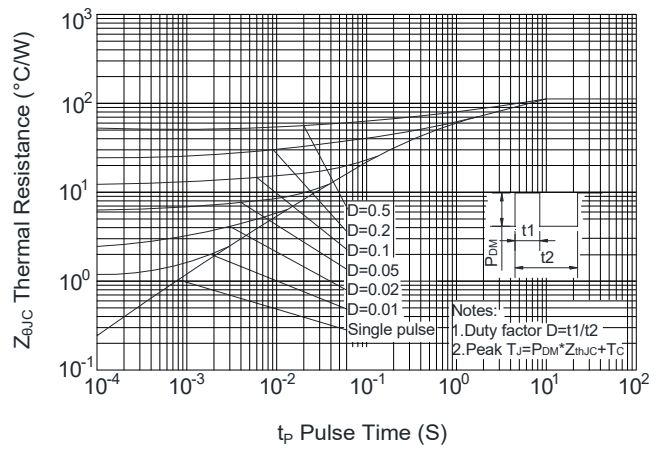
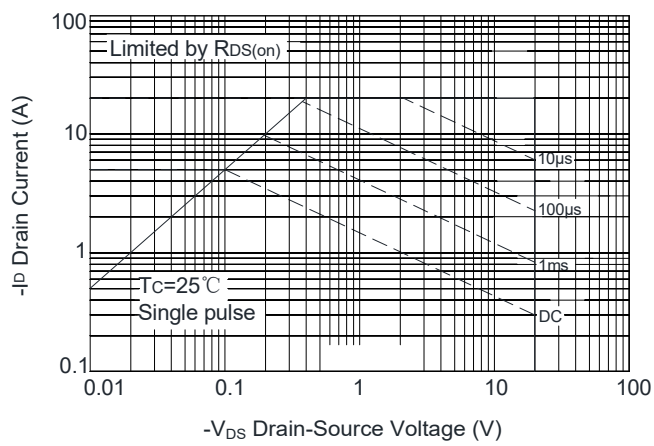
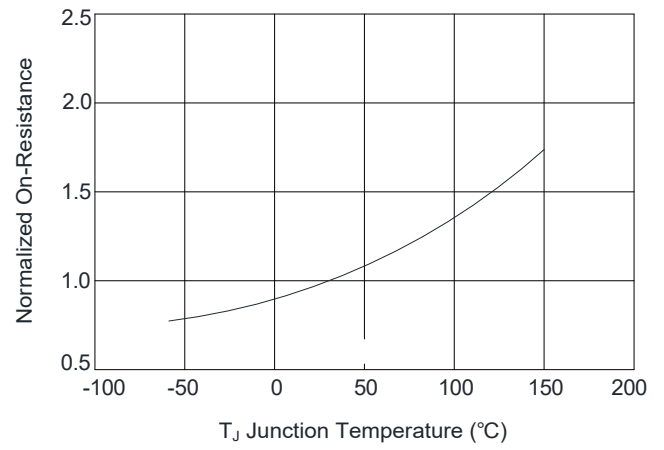
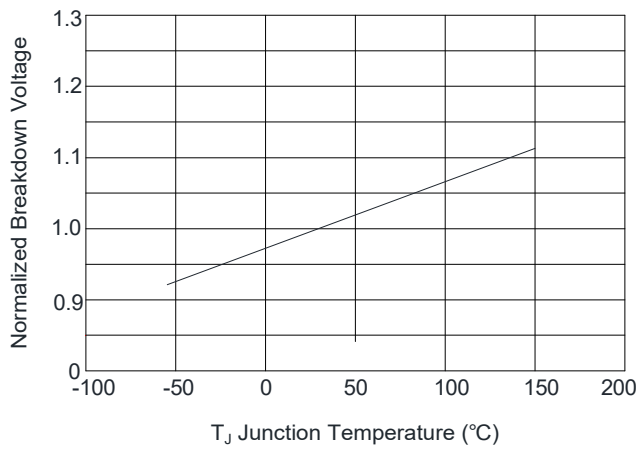
Typical Characteristic Curves





PJM09P20DF

P-Channel Enhancement Mode Power MOSFET





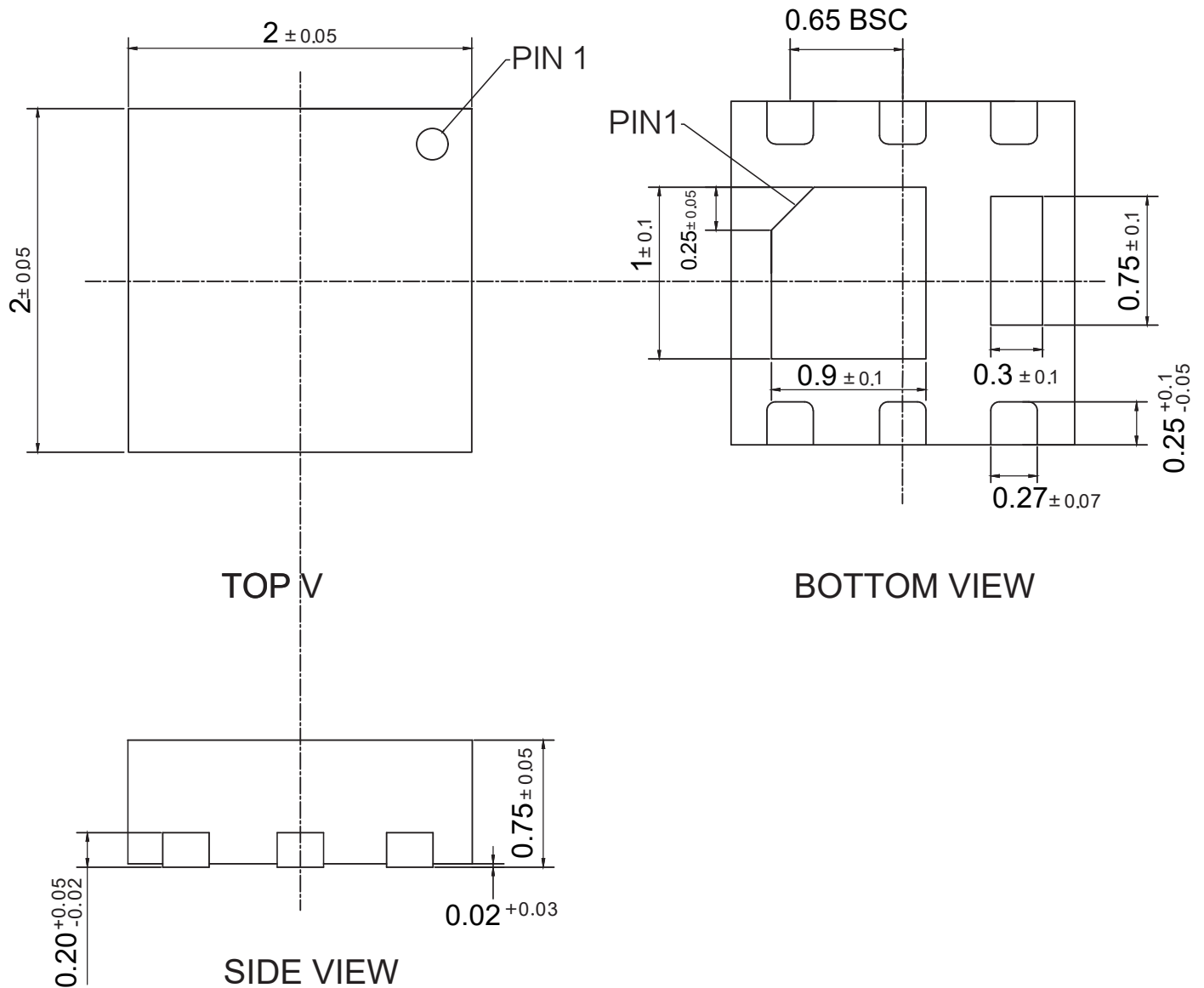
PJM09P20DF

P-Channel Enhancement Mode Power MOSFET

Package Outline

DFN2x2-6L-0001

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJM09P20DF	DFN2x2-6L	3,000PCS/Reel&7inches

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [MOSFET](#) category:

Click to view products by [Pingjingsemi](#) manufacturer:

Other Similar products are found below :

[IRFD120](#) [JANTX2N5237](#) [BUK455-60A/B](#) [MIC4420CM-TR](#) [VN1206L](#) [NDP4060](#) [SI4482DY](#) [IPS70R2K0CEAKMA1](#) [SQD23N06-31L-GE3](#)
[TK16J60W,S1VQ\(O](#) [2SK2614\(TE16L1,Q\)](#) [DMN1017UCP3-7](#) [DMN1053UCP4-7](#) [SQJ469EP-T1-GE3](#) [NTE2384](#) [DMC2700UDMQ-7](#)
[DMN2080UCB4-7](#) [DMN61D9UWQ-13](#) [US6M2GTR](#) [DMN31D5UDJ-7](#) [DMP22D4UFO-7B](#) [DMN1006UCA6-7](#) [DMN16M9UCA6-7](#)
[STF5N65M6](#) [IRF40H233XTMA1](#) [STU5N65M6](#) [DMN6022SSD-13](#) [DMN13M9UCA6-7](#) [DMTH10H4M6SPS-13](#) [DMN2990UFB-7B](#)
[IPB80P04P405ATMA2](#) [2N7002W-G](#) [MCAC30N06Y-TP](#) [MCQ7328-TP](#) [NTMC083NP10M5L](#) [NVMFS2D3P04M8LT1G](#) [BXP7N65D](#)
[BXP4N65F](#) [AOL1454G](#) [WMJ80N60C4](#) [BXP2N20L](#) [BXP2N65D](#) [BXT1150N10J](#) [BXT1700P06M](#) [TSM60NB380CP](#) [ROG](#) [RQ7L055BGTCR](#)
[DMNH15H110SK3-13](#) [SLF10N65ABV2](#) [BSO203SP](#) [BSO211P](#)